

547061

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 September 2004 (10.09.2004)

PCT

(10) International Publication Number
WO 2004/076461 A1

(51) International Patent Classification⁷: **C07D 495/22**

(21) International Application Number:
PCT/GB2004/000773

(22) International Filing Date: 26 February 2004 (26.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0304456.7 26 February 2003 (26.02.2003) GB

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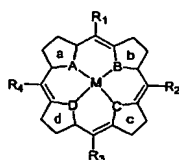
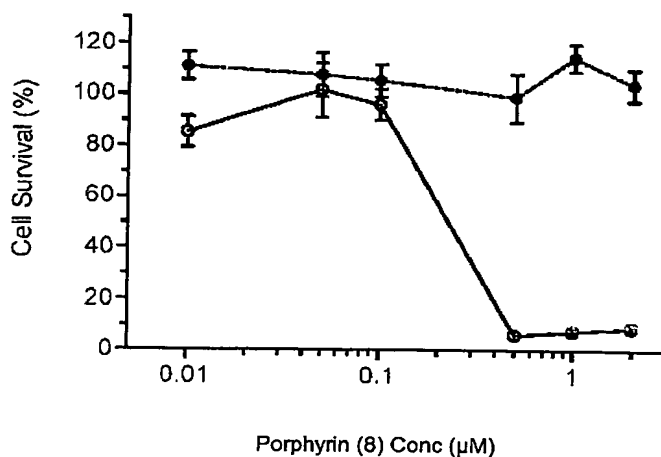
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: **PORPHYRIN DERIVATIVES**



(I)

(57) Abstract: The present invention relates to a compound of formula (I) : Formula (I) wherein one or two of A, B, C and D are each independently selected from S, O, Se and Te, and the remainder are N; a, b, c and d are each independently substituted or unsubstituted 5-membered heterocyclic groups having the members necessary to complete a porphyrin, chlorin, bacteriochlorin or isobacteriochlorin nucleus in which one or two of the nitrogens are replaced by S, O, Se or Te; M is H or a metal; R₁, R₂, R₃ and R₄ are each independently selected from: H; alkyl; cycloalkyl; halogen; aryl or heteroaryl, each of which may be optionally substituted by one or more substituents selected from OH, CN, CF₃, alkyl, alkoxy, haloalkyl, halogen, an isothiocyanate group, a haloacetamide, maleimide, NH₂, NO₂, CONH₂, COOH, COO-alkyl, -OZ, -COOZ, a polyethylene glycol group, an alkyl sulfonate group, an alkyl-COOH group, a substituted or unsubstituted benzyl group, a sugar derivative, -C≡C-(CH₂)_pCO₂R₁₀, where R₁₀ is H or alkyl, and O(CH₂)_rCOR₁₁, where R₁₁ is OH, O-alkyl or -N-succinimide, and p and r are each independently an integer from 1

to 10; Formula (II) wherein W is an aryl, alkyl or heteroaryl group, each of which may be optionally substituted by one or more substituents listed above where Z is a silicon-containing protecting groups; and wherein when a, b, c and d have the members necessary to complete a porphyrin nucleus in which one or two of the nitrogens are replaced by S, O, Se or Te, (c) R₁, R₂ and R₃ are identical, and R₄ ≠ R₁, R₂, R₃; or (d) R₁=R₃; R₂=R₄, where R₁, R₃ ≠ R₂, R₄; or (d) R₂=R₃; R₁ ≠ R₄; and R₁, R₄ ≠ R₂, R₃.

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Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Declaration under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for US only

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